**Special Conditions**

Permit Number 70748

## Emission Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

2. In order to demonstrate compliance with the exemptions listed in Title 30 Texas Administrative Code § 115.727(c)(2) and (D) [30 TAC § 115.727(c)(2) and (D)], and until the permit holder notifies the TCEQ that 30 TAC Chapter 115, Subchapter H, Division 1 is applicable, the holder of this permit shall document that HRVOC levels in vent gas streams, where applicable, are less than 100 ppm and that annual HRVOC emissions are less than 0.5 ton. Records of the HRVOC levels shall be kept in accordance with Special Condition No. 31.

3. Emissions generated from the cleaning of containers where the immediate past service was a compound identified in List III, IV, or V shall be vented to the flare. Except as provided in Special Condition No. 14, emissions generated from the bulk transfer of compounds appearing on List III, IV, or V shall be vented to the flare. The flare shall be operated with no less than 98 percent efficiency in disposing of the carbon compounds captured by the vapor collection system.

4. Flares shall be designed and operated in accordance with the following requirements:

   A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18) specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

      The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.

   B. The flare shall be operated with a flame present at all times during facility operations that could vent to the flare. The pilot flame shall be continuously monitored by a thermocouple. The monitoring device and automatic ignition system shall be inspected, maintained, and serviced (if necessary) in accordance with the manufacturer's specified schedule to ensure optimal performance.

   C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

5. Emissions generated from the cleaning of containers where the immediate past service was a compound identified in Lists IV, V, VII, or VIII shall be vented to the scrubber. Except as provided in Special Condition No. 14, emissions generated from the bulk transfer of compounds appearing on Lists IV, V, VII, or VIII shall be vented to the scrubber. Prior to cleaning or transferring any of the compounds on lists IV, V, VII, or VIII, the scrubber shall be charged with the scrubbing solution identified for each compound on the lists and

the facility shall establish and document the minimum scrubbing solution concentration and the liquid flow rate necessary to maintain scrubber efficiency. The concentration of the scrubbing solution shall be monitored and recorded prior to and after each cleaning or transfer operation that uses the scrubber. Records shall include the compound cleaned or transferred, the scrubbing solution used, the measured concentration of the scrubbing solution, and the minimum concentration level established for the scrubbing solution. For caustic and acid scrubbing solutions, pH is an acceptable indicator of concentrations. The vent from the scrubber shall be routed to the flare at all times during the cleaning or transfer of compounds in lists IV or V.

6. The scrubber (EPN SCRUB) shall operate with no less than 99 percent removal efficiency for silicon tetrachloride on an hourly average. The minimum removal efficiency for other contaminants is 95 percent on an hourly average.

7. The minimum liquid flow to the scrubber shall be 30 gpm prior to the first stack test performed in accordance with Special Condition No. 8. After the first satisfactory stack test, the flow shall be at least equal to that maintained during the last satisfactory stack test. The circulation rate shall be monitored and recorded at least once an hour.

8. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Scrubber (EPN SCRUB) to demonstrate compliance with the MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

   Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for 40 CFR Part 60 testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

   A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

      (1) Proposed date for pretest meeting.

      (2) Date sampling will occur.

      (3) Name of firm conducting sampling.

      (4) Type of sampling equipment to be used.

      (5) Method or procedure to be used in sampling.

      (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

(7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

B. Air contaminants emitted from the Scrubber (EPN SCRUB) to be tested for include (but are not limited to): volatile organic compounds, sulfur dioxide, and inorganic compounds.

C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

D. The facility being sampled shall operate at the maximum allowable rate of cleaning or transfer operations during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate, including circulation rate, pH, temperature, and exhaust gas flow rate/concentration, shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the rate of cleaning or transfer operations is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.

E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled “Chapter 14, Contents of Sampling Reports” of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

9. Emissions generated from the cleaning of containers where the immediate past service was a chemical identified in List VI shall be vented to the Carbon Adsorption Unit (CAU). Except as provided in Special Condition No. 14, emissions generated from the bulk transfer of compounds appearing on List VI shall be vented to the CAU. The CAU shall consist of at least two activated carbon containers connected in series.

A. The CAU shall be sampled and recorded at the initiation of cleaning or transfer operations and periodically throughout the process to determine breakthrough of volatile organic compounds (VOC).

B. The VOC sampling and analysis shall be performed using an instrument with a flame ionization detector (FID), a photoionization detector (PID), or a TCEQ-approved alternative detector. The instrument must meet all requirements specified in Section 8.1 of EPA Method 21 (40 CFR 60, Appendix A) or another EPA method more suitable for that instrument. Sampling and analysis for VOC breakthrough shall be performed as follows:

(1) Immediately prior to performing sampling or at least once each day prior to actual sampling, the instrument shall be calibrated with zero and span calibration gas mixtures. Zero gas shall be certified to contain less than 0.1 ppmv total hydrocarbons. Alternatively, the zero may be generated using a charcoal filter per manufacturers instructions. Span calibration gas shall be certified by the manufacturer to be ± 2 percent accurate.

(2) The sampling point shall be at the outlet of the initial carbon container but before the inlet to the second or final polishing carbon container. Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling.

(3) During sampling, data recording shall not begin until after two times the instrument response time. During cleaning or transfer operations the VOC concentration shall be monitored for at least 5 minutes, recording 1-minute averages if using a FID or equivalent, or monitored until a stable reading is achieved for a period of at least 30 seconds if using a PID.

C. Breakthrough shall be defined as a measured VOC concentration of 50 parts per million by volume (ppmv) corrected for the appropriate equipment response factor of the monitoring instrument. When the condition of VOC breakthrough occurs, the operator shall cease cleaning or transfer operations until the spent first carbon container is removed, the waste flow is redirected to the second carbon container, and a fresh new carbon container is placed as the new final polishing carbon container. Sufficient fresh activated carbon containers shall be maintained at a convenient location to allow timely replacement of spent carbon containers at anticipated use rates.

D. Records of the CAU monitoring maintained at the plant site shall include (but are not limited to) the following:

(1) Sample time and date.

(2) Monitoring results (ppmv).

(3) Corrective action taken upon discovery of breakthrough or other upset, including the time and date of that action.

(4) Process operations occurring at the time of sampling.

These records shall be made available upon request to representatives of the TCEQ and any local air pollution program having jurisdiction and shall be retained for at least two years following the date that the data is obtained.

E. Alternate monitoring or sampling requirements that are equivalent or better may be approved by the TCEQ Regional Manager or the TCEQ Regulatory Compliance Section Manager. Alternate requirements must be approved in writing before they can be used for compliance purposes.

**Operating Restrictions**

10. The total container volume cleaned and transferred shall not exceed 60,000 gallons in any one-hour period for each of the chemicals appearing on Lists I through VIII. The total container volume cleaned and transferred shall not exceed 120,000,000 gallons per year. Larger volumes may be cleaned and transferred in any one-hour period if allowed by Special Condition No. 11. Lesser volumes are allowed for certain chemicals as specified in Lists I through VIII. The same chemicals may not be simultaneously emitted from EPNs WR-1, WR-1EV, F-1, SCRUB, or CAU-1 during any one hour period unless the throughputs are adjusted to meet the requirements of Special Condition No. 11 or the total container volume does not exceed 60,000 gallons in any one hour. For the purposes of this requirement, cleaning refers to operations that include heel removal, degassing, and/or washing. Cleaning is not intended to include clean water rinsing, air drying, post-cleaning inspections, buffing, sand blasting, and other post-wash operations.

    The types of containers that may be handled during cleaning or bulk transfer operations at the facility include (but are not limited to) isotainers, railcars, road tankers, roll-off bins, totes, and drums. The containers shall remain closed until cleaning or transfer procedures are implemented. If procedures are interrupted before the cleaning or transfer process is complete, the containers shall be immediately closed to prevent emissions.

11. The facilities authorized by this permit are restricted to container cleaning or bulk transfer operations involving the chemical compounds identified in Lists I, II, III, IV, V, VI, VII, and VIII attached to these special conditions. New compounds may be added and throughput of any approved compounds may be increased through the use of one of the procedures described on paragraphs A - D below, 30 TAC Chapter 106, or 30 TAC Chapter 116. **(11/15)**

    A. The total maximum emission rate of the new chemical from all sources is less than 0.04 pound per hour and the Effects Screening Level (ESL) is greater than 2 $\mu g/m^3$.

    B. The new chemical has an equal or lower vapor pressure, an equal or lower molecular weight, and an equal or higher published ESL value from the TCEQ ESL list than a compound already approved for handling in the permit. The ESL for the chemical shall be obtained from the current TCEQ ESL list or by written request (e-mail acceptable) to the TCEQ Toxicology Division. Self-authorization of any new compound using this provision must satisfy the following conditions:

(1) This self-authorization provision may not be used to authorize the transloading of new chemicals containing sulfur or the cleaning of containers where the immediate past service was a chemical containing sulfur unless the approved chemical used for comparison has an equal or higher sulfur content.

(2) This self-authorization provision may not be used to authorize the transloading of new chemicals containing halogens or the cleaning of containers where the immediate past service was a chemical containing halogens unless the approved chemical used for comparison has an equal or higher concentration of the same halogen.

(3) The new chemical must be handled with the same limitations and controls, or more stringent emissions controls, as required for the approved chemical with which it is compared.

C. The total emissions of any new compound from all emission points identified in this permit must satisfy the following condition:

$(ER/ESL)_N \leq (ER/ESL)_E$

Where:

$(ER/ESL)_N$ = maximum hourly ER of new compound(s) divided by its ESL

$(ER/ESL)_E$ = the highest ratio of any previously authorized compound(s) hourly ER divided by its ESL)

The ESL for the chemical shall be obtained from the current TCEQ ESL list or by written request (e-mail acceptable) to the TCEQ Toxicology Division.

D. The predicted ground level concentration (GLC) from each chemical does not exceed twice the associated effects screening level (ESL) from the ESL list (or as provided by the TCEQ) in effect at the time of the initial use of the new chemical or at the time of the change in handling of previously authorized chemicals.

The following equation and impact multipliers shall be used to calculate the GLC:

GLC ($\mu g/m^3$) = Impacts Multiplier ($\mu g/m^3$/lb/hr) x Emission Rate (lb/hr)

Where the impacts multipliers are as follows:

(1) 501.00 µg/m3/lb/hr for the wash rack without elevated venting (EPN WR-1)

(2) 130.00 µg/m3/lb/hr for the wash rack with elevated venting (EPN WR-1EV)

(3) 6.2 µg/m3/lb/hr for the flare (EPN F-1)

(4) 132.7 µg/m3/lb/hr for the scrubber (EPN SCRUB)

(5) 138.9 µg/m3/lb/hr for the carbon adsorption unit (EPN CAU-1)

E. The permit holder shall maintain records of the information below and the demonstration of compliance for self-authorization in accordance with procedure A, B, C, or D above. The following documentation is required for each compound:

(1) Chemical name(s), composition, and chemical abstract registry number, if available;

(2) True vapor pressure at 100 °F;

(3) Molecular weight;

(4) Material Safety Data Sheet, Technical Data Sheet, or Waste Profile;

(5) The emission control device(s) to be utilized; and

(6) Date new compound handling commenced.

12. All chemicals and mixtures of chemicals with a vapor pressure greater than or equal to 0.5 psia may be handled at the facility as long as each component in the mixture comprising more than 1 percent by weight is authorized under the approved chemicals lists of this permit, permit by rule, or the requirements of Special Condition No. 11 above. Water is not considered a chemical for the purpose of this demonstration. Also, all chemicals and mixtures of chemicals with a vapor pressure less than 0.5 psia may be handled as follows:

(1) As authorized under the approved chemicals lists of this permit, permit by rule, or the requirements of Special Condition No. 11 above;

(2) Uncontrolled if VOC is measured at concentrations less than 150 ppm in the vessel's vapor space; or

(3) Controlled, as appropriate, using:

i. the carbon unit and the flare, or

ii. the scrubber and the flare, or

iii. the flare only,with limited equivalent container volumes of 25,000 gallons per hour.

13. Vapors from container cleaning operations involving a chemical appearing on List III, IV, V, VI, VII, or VIII shall be collected and vented to the appropriate control device using a vacuum-assisted vapor collection system. Except as provided in Special Condition No. 14, the vacuum-assisted vapor collection system shall also be used to collect displaced vapors from the bulk transfer operation and route them to the appropriate control device specified for List III, IV, V, VI, VII, or VIII chemicals.

A. The vacuum-assisted vapor collection system shall maintain a negative pressure of at least two inches of water column during all container cleaning and bulk transfer operations for which the system is required.

B. A vacuum gage shall be installed on the suction side of the system to verify the vacuum.

C. Should the vacuum system stop functioning, all container cleaning and bulk transfer operations involving List III, IV, V, VI, VII, or VIII compounds shall cease and repairs shall be completed before resuming operations.

14. The facility may employ closed-loop vapor balancing to control emissions during the bulk transfer (transloading) operations in lieu of the flare, scrubber, or CAU.

15. Boiler EPN B-1 shall be fired with natural gas contain no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf). Use of any other fuel will require prior approval of the Executive Director of the TCEQ.

16. Fuel for Boiler (EPN B-2) is limited to diesel or distillate oil containing less than 0.144 weight percent sulfur. The liquid fuel shall not consist of blends containing waste oils or waste solvents. Use of any other fuel will require prior approval of the Executive Director of the TCEQ.

17. Abrasive blasting shall only occur on the interior surfaces of containers. The blast media authorized by this permit consists of coal slag, corn cob, nut shells, seed hulls, and steel shot. Other abrasive blast media may be used provided that it:

    (1) Does not contain asbestos;

    (2) Does not contain crystalline silica equal to or greater than 1.0 percent by weight; and

    (3) Does not contain metal(s) having a short-term ESL less than 50 $\mu g/m^3$ as published in the TCEQ's current ESL list.

**Compound Handling Methods**

18. Lists I and II contains those chemicals that this facility is authorized to clean or transload without emission controls. The cleaning and transfer operations shall not exceed the volume limitations specified for each compound in the list. Prior to internal cleaning, liquid residues (heels) shall be transferred into Department of Transportation (DOT)-approved shipping containers or flushed to the wastewater storage tanks for treatment and disposal at a TCEQ permitted wastewater treatment and disposal facility.

19. List III contains the non-halogenated chemical compounds that this facility is required to control using the flare during cleaning and bulk transfer operations. These compounds shall be vented to the flare for the duration of the internal cleaning process or bulk transfer operation. The cleaning and transfer operations shall not exceed the volume limitations specified for each compound in the list. Prior to internal cleaning, liquid residues (heels) shall be transferred into DOT approved shipping containers or flushed to the wastewater storage tanks for treatment and disposal at a TCEQ permitted wastewater treatment and disposal facility.

20. Lists IV and V contain those chemical compounds that this facility is required to control using the scrubber and flare. These compounds shall be routed to the scrubber during internal cleaning or bulk transfer operations. The scrubber shall be operated as described in Special Condition No. 5 above. The cleaning and transfer operations shall not exceed the volume limitations specified for each compound in the list. Prior to internal cleaning,

liquid residues (heels) shall be transferred into DOT approved shipping containers or flushed to the wastewater storage tanks for treatment and disposal at a TCEQ permitted wastewater treatment and disposal facility.

21. List VI contains the halogenated chemical compounds that this facility is required to control using the CAU and flare. These compounds shall be routed to the CAU during internal cleaning or bulk transfer operations. The CAU shall be operated as described in Special Condition No. 6 above. The cleaning and transfer operations shall not exceed the volume limitations specified for each compound in the list. Prior to internal cleaning, liquid residues (heels) shall be transferred into DOT approved shipping containers or flushed to the wastewater storage tanks for treatment and disposal at a TCEQ permitted wastewater treatment and disposal facility.

22. Lists VII and VIII contains those chemical compounds that this facility is required to control using the scrubber. These compounds shall be routed to the scrubber during internal cleaning or bulk transfer operations. The scrubber shall be operated as described in Special Condition No. 5 above. The cleaning and transfer operations shall not exceed the volume limitations specified for each compound in the list. Prior to internal cleaning, liquid residues (heels) shall be transferred into DOT approved shipping containers or flushed to the wastewater storage tanks for treatment and disposal at a TCEQ permitted wastewater treatment and disposal facility.

**Housekeeping**

23. All residual chemicals (i.e., heels) shall be stored in a closed container prior to shipment off-site. The containers shall be opened only when necessary to add or remove material.

24. All transloading and cleaning shall be conducted over drip pans or in curbed or otherwise contained areas.

25. Good housekeeping procedures shall be exercised so that abrasive blast media shall not accumulate in any manner that results in off-site windblown particulate matter.

**Recordkeeping**

26. For the purpose of assuring compliance with the conditions of this permit, the permit holder shall maintain the following records for each container cleaned at this facility:

    A. Container type and capacity in gallons.

    B. Chemical name.

    C. Time and date that internal cleaning operations on the container started.

    D. Control device used.

27. For the purpose of assuring compliance with the conditions of this permit, the permit holder shall maintain the following records for each bulk transfer operation at this facility:

    A. Chemical name.

    B. The volume transferred.

    C. Time and date that the transfer commenced.

    D. Control device used.

28. For purposes of assuring compliance with the annual emission limitations of this permit, the holder of this permit shall quantify emissions from the container cleaning and bulk transfer operations on a monthly basis. The emissions shall be calculated within 30 calendar days after the end of each calendar month.

29. The holder of this permit shall maintain up-to-date and readily accessible records of all chemicals approved for handling under Special Condition No. 11. These records shall include emission calculations and sufficient documentation to demonstrate compliance with the criteria for authorization.

30. Records of the blast material usage relating to abrasive blasting operations shall be maintained such that the facility is able to demonstrate compliance with the authorized short-term and annual emission rates.

31. Records of process parameters which affect allowable emission rates for permitted sources, and which may be necessary to demonstrate compliance with those allowable rates, shall be maintained for a period of two years after the date they were made. These and all other records required by any previous condition of this permit shall be made available to the TCEQ or any local air pollution program upon request.

Date: November 19, 2015